

NHDOT SPR2 PROGRAM

RESEARCH PROGRESS REPORT

INSTRUCTIONS:

Project Managers and/or Principal Investigators should complete a progress report at least every three months during the project duration. Reports are due the 5th of the month following the end of the quarter. Please provide a project update even if no work was done during this reporting period.

Project # 26962R		Report Period Year: 2017 <input type="checkbox"/> Q1 (Jan-Mar) <input type="checkbox"/> Q2 (Apr-Jun) <input checked="" type="checkbox"/> Q3 (Jul-Sep) <input type="checkbox"/> Q4 (Oct-Dec)
Project Title: Active Transportation Accounting: A three-pronged approach to developing metrics for project prioritization, monitoring, safety assessment, and evaluation		
Project Investigator: Amy Villamagna Phone: 603-535-2217		E-mail: amvillamagna@plymouth.edu
Project Start Date: 1 Dec 1, 2016	Project End Date: 31 March 31, 2018	Project schedule status: <input checked="" type="checkbox"/> On schedule <input type="checkbox"/> Ahead of schedule <input type="checkbox"/> Behind schedule

Brief Project Description:

This project will leverage *a*) existing datasets (participatory mapping of facility activity through the Strava App), *b*) statewide on-the-ground bike-ped monitoring initiatives (conducted in partnership with the 9 regional planning commissions in NH) (Tufts et al. 2015), *c*) efforts to develop and apply a Level of Traffic Stress (LTS) model for bicycling (MTI Report II-19), and incorporate novel public participatory GIS approaches to assess patterns of current bicycle activity and identify potential barriers to access and participation.

Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):

- Developed maps to illustrate the accessibility analysis
- Further summarized and statistically analyzed responses from the Public Participatory GIS (PPGIS) surveys
Completed drafts of 2 manuscripts from research
 - Getts, L. & A. Villamagna. "Bicycling Network Accessibility in New Hampshire".
 - Getts, L. & A. Villamagna. "Public Participatory GIS as an Active Transportation Planning Tool"
- Laura Getts presented (defended) research on July 21, 2017 at Plymouth State University. Full thesis is available at https://www.dropbox.com/s/jgza25inwisfng1/LGetts_Thesis_20170829.pdf?dl=0
- Conducting road improvement comparisons using Strava datasets
- Compiled and compared PPGIS, LTS, and Strava results
- Compiled survey comments (from PPGIS survey) that relate to LTS
- Continued LTS model tool development
- LTS model tool user guide

Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, etc...):

TAG meeting will occur October 19, 2017 VIA CONFERENCE CALL.

Anticipated research next 3 months:

- Finalize GIS tools for common Strava data analysis
- Finalize GIS tools for manual count to Strava comparisons
- Final summary of Strava 2015 & 2016 data
- Final report and presentation to NH DOT RAC
- Begin Walkability model research (to be discussed at Oct meeting)
- Conduct review of LTS model (to be discussed at Oct meeting)

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Circumstances affecting project: Describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope, and budget, along with recommended solutions to those problems.

Laura Getts (GIS analyst) has graduated from PSU and is working in Colorado. She continues to be on the project as an hourly employee to complete the preparation of GIS Tools for Strava data analysis, the GIS Tools for manual count to Strava comparisons and help prepare the final report and presentation to NH DOT RAC. At this time, I believe we are on schedule to complete the tasks listed by the end of March.

Tasks (from Work Plan)	Planned % Complete	Actual % Complete
Utilize LTS data to validate Strava choke points (barriers) or faculty disruptions in focal regions	100%	85%*
Evaluate increases in biking activity potentially attributed to road paving (Strava 2014 & 2015)	100%	85%*
Evaluate biking accessibility to key community amenities using LTS model (continued)	100%	100%
Compare biking pattern observation in Strava to ridership expected by LTS	100%	100%

* To be shared at the October 19, 2017 meeting and looking for feedback.